

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	37364	spreader	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:34
L2	15	spreader near3 "PN" near3 generator	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:38
L3	2	2 and narrow near3 band	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:35
L4	42	narrow near3 band and spreader and "PN" near3 generator	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:44
L5	0	receiv\$3 near3 narrow near3 band and spreader and "PN" near3 generator and transmit\$5 near3 wideband near3 (cdma or spread\$4 near3 sequence)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:49
L6	0	receiv\$3 and narrow near3 band near3 spreader and "PN" near3 generator and transmit\$5 near3 wideband near3 (cdma or spread\$4 near3 sequence)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 11:49
L7	0	receiv\$3 and narrow near3 band near3 spreader and "PN" near3 generator and transmit\$5 and wideband near3 (cdma or spread\$4 near3 sequence)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:04
L8	3	receiv\$3 and narrow near3 band and spreader and "PN" near3 generator and transmit\$5 and wideband near3 (cdma or spread\$4 near3 sequence)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:13
L9	9	("5319672" "5555268" "5583851" "5640385" "5956345" "6141332" "6256290" "6269126" "6275509"). PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:07
L10	0	receiv\$3 and narrow near3 band and (wideband or wideband) near3 spreader and "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:16

L11	16	receiv\$3 and narrow near3 band and (wideband or wideband) and spreader and "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:20
L12	145	receiv\$3 and narrow near3 band and (wideband or wideband) and "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:31
L13	18	receiv\$3 and narrow near3 band and cdma and spread\$4 near3 "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:35
L14	1	demodulat\$3 near3 narrow near3 band and cdma and spread\$4 near3 "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:36
L15	6	receiver\$3 near3 narrow near3 band and cdma and spread\$4 near3 "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:37
L16	1173	demodulat\$5 near3 (FM or narrow near3 band) and spread\$4 (FM or narrow near2 band) and "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:38
L17	17	demodulat\$5 near3 (FM or narrow near3 band) and spread\$4 near3 (FM or narrow near2 band) and "PN" near3 generator and transmit\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/04/18 12:38
L18	9	("5101417" "5691666" "5694417" "5712870" "5745531" "5878087" "5940435" "6263013" "6314128").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:43
L19	7	("5048053" "5121407" "5241562" "5457713" "5477195" "5544155" "5574754").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:46
L20	7	("5048053" "5121407" "5241562" "5457713" "5477195" "5544155" "5574754").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:52
L21	12	(FM or narrow) near3 receiver and spreader	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:54
L22	1	(FM or narrow near3 band) near3 receiv\$3 and spreader near3 pn near2 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:55

L23	0	spread\$4 near3 (FM or narrow near3 band) and spreader near3 pn near2 generator and spreader near3 transmitter	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:56
L24	2	spread\$4 near3 (FM or narrow near3 band) and spreader near3 pn near2 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:57
L25	1	demodulat\$5 near3 (FM or narrow near3 band) and spreader near3 pn near2 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 12:59
L26	2	demodulat\$5 near3 (FM or narrow near3 band) and spreader near3 shar\$5	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:00
L27	0	FM near3 receiver and spreader near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:00
L28	1	narrow near3 receiver and spreader near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:01
L29	1	narrow near3 receiv\$3 and spreader near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:01
L30	1	narrow near3 spreader and spreader near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:24
L31	1	receiv\$4 near3 narrow and spreader near3 narrow and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:25
L32	0	decod\$4 near3 narrow and spreader near3 narrow and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:25
L33	12	demodulat\$4 near3 narrow near3 band and spread\$4 near3 narrow and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:28
L34	3	receiv\$4 near3 narrow near3 band and spread\$4 near3 code near3 narrow and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:31
L35	15	receiv\$4 and spread\$4 near3 narrow near3 band and spread\$4 near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:35
L36	1	antenna near3 narrow near3 band and spread\$4 near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:35
L37	2	antenna near3 FM and spread\$4 near3 pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:39
L38	1	spreader near3 (FM or narrow) near3 input\$1 and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:40

L39	0	spreader near3 receiv\$5 near3 (FM or narrow) and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:40
L40	2	spreader near4 (FM or narrow) and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:41
L41	120	spread\$3 near4 (FM or narrow) and pn near3 generator	US-PGPUB; USPAT; USOCR	OR	ON	2005/04/18 13:41



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United States Patent [19][11] **Patent Number:** **5,469,468****Schilling**[45] **Date of Patent:** * **Nov. 21, 1995****[54] OVERLAYING SPREAD-SPECTRUM
SATELLITE SYSTEM AND METHOD**[75] **Inventor:** Donald L. Schilling, Sands Point, N.Y.[73] **Assignee:** Interdigital Technology Corporation,
Wilmington, Del.[*] **Notice:** The portion of the term of this patent
subsequent to Sep. 27, 2011, has been
disclaimed.[21] **Appl. No.:** 127,261[22] **Filed:** Sep. 27, 1993**Related U.S. Application Data**[63] Continuation-in-part of Ser. No. 622,235, Dec. 5, 1990, Pat.
No. 5,351,269.[51] **Int. Cl.⁶** **H04K 1/00**[52] **U.S. Cl.** **375/200; 375/202; 375/205;**
380/34[58] **Field of Search** 380/34; 375/1;
455/12.1, 33.1; 379/59**[56] References Cited****U.S. PATENT DOCUMENTS**4,222,115 9/1980 Cooper et al. 375/1
4,697,260 9/1987 Grauel et al. 370/18
4,799,253 1/1989 Stern et al. 379/594,901,307 2/1990 Gilhousen et al. 375/1 X
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5,351,269 9/1994 Schilling 375/1**Primary Examiner**—Tod R. Swann**Attorney, Agent, or Firm**—David Newman & Associates**[57] ABSTRACT**

A spread-spectrum satellite system for communicating data and paging messages to a plurality of remote units. The spread-spectrum communications system has a satellite with an antenna beamwidth located within a same geographical region as covered by an existing FDMA, TDMA or other mobile-satellite system. The spread-spectrum satellite system has a device for converting the format of the data into a form suitable for communicating over radio waves, a spread-spectrum modulator for spread-spectrum processing the data, and a transmitter for transmitting the spread-spectrum-processed-converted data from the satellite to a remote unit. The remote unit has an antenna and a spread-spectrum receiver for recovering data communicated from the satellite. The remote unit optionally may have a comb filter for notch filtering mobile channels of the mobile-satellite system.

25 Claims, 13 Drawing Sheets